



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/829,572	04/22/2004	Daniel R. Wright	MTC 6875.1 (39-21(52751)B	6729
321	7590	03/12/2009	EXAMINER	
SENNIGER POWERS LLP 100 NORTH BROADWAY 17TH FLOOR ST LOUIS, MO 63102			BROWN, COURTNEY A	
			ART UNIT	PAPER NUMBER
			1616	
			NOTIFICATION DATE	DELIVERY MODE
			03/12/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

uspatents@senniger.com

Office Action Summary	Application No.	Applicant(s)	
	10/829,572	WRIGHT ET AL.	
	Examiner	Art Unit	
	COURTNEY BROWN	1616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 23 October 2008.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 29-53, 59 and 62 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 29-53, 59, and 62 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ . |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ . | 6) <input type="checkbox"/> Other: _____ . |

DETAILED ACTION

Acknowledgement of Receipt/Status of Claims

This Office Action is in response to the amendment filed October 23, 2008.

Claims 29-53,59, and 62 are pending in the application. Claims 1-28,54-58,60, and 61 have been cancelled. Claims 29-53,59, and 62 are being examined for patentability.

Applicant's arguments, see pages 16-25, filed October 2, 2008, with respect to the rejection(s) of claim(s) 129-53,59, and 62 under 35 USC 103 (a) have been fully considered and are not persuasive. However, upon further consideration, a new ground(s) of rejection has been made in this Office Action.

Rejections not reiterated from the previous Office Action are hereby withdrawn. The following rejections and/or objections are either reiterated or newly applied. They constitute the complete set of rejections and/or objections presently being applied to the instant application.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140

Art Unit: 1616

F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

The provisional rejection of claims 29-53, and 59 on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-4,7-10,12-24,26-38,48,63,69-73, and 75-84 of copending Application No. 11/368,873 **is maintained**. Although the conflicting claims are not identical, they are not patentably distinct from each other because the instantly claimed subject matter embraces or is embraced by the co-pending application 11/368,873.

Instant claims 29-53 and 59 and copending claims 1-4,7-10,12-24,26-38,48,63,69-73, and 75-84 recite the same composition comprising glyphosate or a derivative thereof, a pyridine analog or a derivative thereof (i.e. bipyridilium), and at least one surfactant. From this extensive overlap of subject matter, one of ordinary skill in the art would recognize that the same product is taught in the copending application 11/368,873 .

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

The provisional rejection of claims 29-53, and 59 on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1,9,10,11,15,16, and 17 of copending Application No. 11/227,577. Although the conflicting claims are not identical, they are not patentably distinct from each other because the instantly claimed subject matter embraces or is embraced by the co-pending application 11/227,577 **is maintained.**

Instant claims 20-53 and copending claims 1,9,10,11,15,16, and 17 recite the same herbicidal composition comprising glyphosate or a salt thereof (claims 1 and 9), a surfactant (claim 15) and a pyridine derivative (claims 16 and 17, imazapyr and triclopyr). However, the copending application discloses the use of a fatty acid component (i.e. pelargonic acid). Pelargonic acid, also known as nonanoic acid is commonly used as a herbicide. It would have been obvious to one of ordinary skill in the art to include an additional herbicidal component in order to increase the total effectiveness of the herbicidal composition. From this extensive overlap of subject matter, one of ordinary skill in the art would recognize that the same product is produced in the copending application 11/227,577 .

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

The provisional rejection of claims 29-53, and 59 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 11, 13, 15, and 16 of copending Application No. 11/438,573 **is maintained.** Although the conflicting claims are not identical, they are not patentably distinct from

each other because the instantly claimed subject matter embraces or is embraced by the co-pending application 11/438,573 .

Instant claims 29-53 and 59 and copending claim 1 recites the same herbicidal composition comprising glyphosate or a salt thereof (claim), a surfactant (claim 11) and a pyridine derivative (claims 13,16, and 16). The only difference between the instant application and that of copending Application No. 11/438,573 is the different concentrations and ratios of components used in the herbicidal compositions. It is routine optimization for one of ordinary skill in the art to adjust the amount of ingredients to optimize the desired results. From this extensive overlap of subject matter, one of ordinary skill in the art would recognize that the same product is produced in the copending application 11/438,573 .

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Examiner's Response to Applicant's Remarks

Applicant's request to hold in abeyance the nonstatutory obviousness-type double patenting provisional rejection of claims 29-53, and 59 over claims 1-4,7-10,12-24,26-38,48,63,69-73, and 75-84 of copending Application No. 11/368,873; claims 1,9,10,11,15,16, and 17 of copending Application No. 11/227,577; and claims 1, 11, 13, 15, and 16 of copending Application No. 11/438,573 is acknowledged. (However, the nonstatutory obviousness-type double patenting rejection should be maintained until claims are in condition for allowance.) what is the meaning of this?

The rejection of claims 59, 33, 37-39 and 42 under 35 U.S.C. 112, second paragraph is maintained.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 59, 33, 37-39 and 42 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In the claims, Applicant uses the terms "derivatives" and "analogs". According to Merriam- Webster's Online Dictionary, a derivative is defined as **a chemical substance related structurally to another substance and theoretically derivable from it or a substance that can be made from another substance** and an analog is defined as **a chemical compound that is structurally similar to another but differs slightly in composition (as in the replacement of one atom by an atom of a different element or in the presence of a particular functional group)**. Therefore, it is unclear as to what applicant is claiming and as a result, the metes and bounds of the claims cannot be ascertained. The specification fails to cure this because it does not define glyphosate derivatives or pyridine derivatives or analogs.

Examiner's Response to Applicant's Remarks

Applicant's arguments filed on October 23, 2008 have been fully considered but they are not persuasive. Applicant argues that pyridine analogs are defined on page 13, lines 18-29 of the instant specification as a class (i.e., genus) of herbicides that includes the species triclopyr, clopyralid, fluroxypyr, dithiopyr, thiazopyr and picloram. Applicant also argues that glyphosate derivatives are defined at page 12, lines 15-21 of the specification as a salt, adduct, or a compound which is converted to glyphosate in plant tissues or which otherwise provides glyphosate ion. However, the Examiner disagrees because naming and giving examples of glyphosate derivatives and pyridine analogs are not the same as defining glyphosate derivatives and pyridine analogs. Therefore the rejection of claims 59, 33, 37-39 and 42 under 35 U.S.C. 112, second paragraph is maintained.

The rejection of claims 49 and 50 under 35 U.S.C. 112, second paragraph is maintained.

Claims 49 and 50 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicant uses the phrase "at least about" in the

Art Unit: 1616

claims when describing the weight ratio of glyphosate to pyridine analog. It is unclear to the examiner if “at least” or “about” is the intended value.

New Rejection(s)

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 29-53, 59, and 62 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hacker et al. (US Patent 6,677,276 B1), Brigance (US 2002/0155953 A1) and Jimoh (US 2003/0004063 A1).

Applicant's Invention

Applicant claims an aqueous herbicidal composition useful for killing or controlling the growth of unwanted plants comprising: glyphosate or a herbicidal derivative thereof (having a concentration in a range from about 4-16.2 grams acid equivalent./L); pyridine analog or a herbicidal derivative thereof selected from the group consisting of triclopyr, clopyralid, dithiopyr, thiazopyr, and picloram (having a concentration in a range from about .4-2 grams acid equivalent/L); and, at least one surfactant (having a concentration not greater than 3.9 grams/L); wherein the glyphosate (acid equivalent basis) and the pyridine analog are present in a weight ratio range between 1:1-20:1, and further wherein when the glyphosate is predominantly in the form of a salt, said salt is selected from the group consisting of a sodium salt, an ammonium salt, an alkylammonium salt, a 10 C3-C16 alkanolammonium salt, a di-

Art Unit: 1616

ammonium salt, an alkylamine salt, a C3-C~6 alkanolamine salt, an alkylsulfonium salt, a sulfoxonium salt, and combinations thereof.

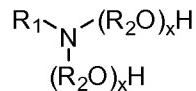
***Determination of the scope and the content of the prior art
(MPEP 2141.01)***

Hacker et al. teach herbicide combinations (A)+(B), with an effective content of (A) herbicides from the group **(A2) glyphosate (salts)**(preferably its alki metal salt s or salts with amines, in particular glyphosate isopropylammonium (see column 2, lines 20-33) and the sodium salt of glyphosate (column 5, line 15) and (B) herbicides from the group **(B2)** predominantly foliar-acting herbicides, such as quinmerac, clopyralid, pyridate and ethametsulfuron-methyl, which are active against dicotyledonous harmful plants (see abstract). Hacker et al. teach that synergistic effects are observed when the active ingredients (A) and (B) are applied jointly (column 3, line 6-34). Hacker et al. teach that glyphosate is usually employed in the form of a salt, preferably in the form of a monoisopropylammonium salt or a trimethylsulfoxonium salt and that the application rates of the aforementioned herbicide combination is in the range of 20 to 2000, preferably 20 to 1000, in particular **20 to 800, g of A.S./ha** (column 5, lines 13-32). Hacker et al. teach that quantitative ratios of (A2):(B2) of particular interest is from 2000:1 to 1:250, preferably from 1000:1 to 1:150, in particular from 200:1 to 1:50, very particularly preferably from **60:1 to 1:20** (column 9, lines 6-8). Hacker et al. teach that the combinations of compounds (A) and (B) can be formulated in various ways which are wettable powders (WP), emulsifiable

Art Unit: 1616

concentrates (EC), aqueous solutions (SL), emulsions (EW) such as oil-in-water and water-in-oil emulsions, sprayable solutions or emulsions, oil- or water-based dispersions, suspoemulsions, dusts (DP), seed-dressing materials, granules for soil application or spreading, or water-dispersible granules (WG), ULV formulations, microcapsules or waxes (column 13, line 66 bridging to column 14, lines 1-9). Hacker et al. additionally teach the use of surfactants (column 14, lines 17 and 18) in the aforementioned herbicide combination.

Brigance teaches an adjuvant composition for pesticide formulations, particularly in N-hosphonomethylglycine (glyphosate) herbicidal formulations (abstract). Brigance teaches that the adjuvant composition comprises polyoxyalkylene aliphatic amine compounds of formula (I)



Formula I

wherein R1 is an alkyl or alkenyl group having from 6 to 22 carbon atoms, R2 is an alkylene group having from 2 to 4 carbon atoms, and x and y are numbers such that x+y has an average value of from about 2 to about 50 (claims 29, 33, 37-39, 42, 51, and section (i) of claim 53, a dialkoxylated amine of instant application). Brigance teaches that the adjuvant or surfactant typically used has a concentration from about 120 to about 180 grams/L ([0017]). Brigance teaches examples of pesticides with which the adjuvant can be formulated includes glyphosate and picloram ([0018], claims 33, 37, 46, and 62 of instant application). Brigance teaches that the water soluble salts of

glyphosate such as sodium and potassium are normally used for most applications due to glyphosate's limited water solubility when in acid form [0019], claims 29, 33, 37-39, and 42 of instant application). Brigance teaches making the adjuvant composition into a concentrate and diluting the concentrate with water when ready for use to form an aqueous pesticidal composition ([0018], claim 62 of instant application). Brigance teaches the herbicidal composition comprising about 50 to about 500 grams acid equivalent /L , preferably between about 360 to about 500 grams acid equivalent/L ([0069]). Additionally, Brigance teaches the formulations being used for killing and/or controlling the growth of weeds ([0020], claims 59 and 62 of instant application).

Jimoh teaches stable, liquid concentrate herbicidal compositions comprising a water-soluble herbicide in a continuous aqueous phase and an oil-soluble herbicide in a discontinuous oil phase (abstract). Jimoh teaches the use of water-soluble herbicides such as clopyralid, picloram, triclopyr, and the especially preferred use of glyphosate or its salts (i.e. ammonium, C1-6 alkylammonium, C1-C6 alkylsulfonium, sodium and potassium) ([0030], claims 29, 33, 37, 46, and 62 of instant application). Jimoh teaches that the liquid concentrate herbicidal composition can optionally contain more than one water-soluble herbicide in solution in the aqueous phase ([0029], claims 29, 33, 37, 46, and 62 of instant application). Jimoh teaches the use of oil-soluble herbicides such as dithipyr and thiazopyr ([0011] and [0012], claims 33, 37, 46, and 62 of instant application). Jimoh teaches the oil-soluble herbicide being present in a concentration such that the weight ratio of water-soluble herbicide (glyphosate) to oil-soluble herbicide (dithipyr and thiazopyr) ranges from about 190:1 to about 1:1 ([0038], claims 32, 33,

36,38,39,42, and 46 of instant application). Additionally, Jimoh teaches the use of at least one surfactant ([0051-0055], claims 29, 33, 37-39, 42, 51, and 53 of instant application) and a method wherein the liquid concentrate herbicidal composition is applied to weeds or unwanted plants such as kudzu ([0076, claim 62 of instant application).

***Ascertainment of the difference between the prior art and the claims
(MPEP 2141.02)***

The difference between the invention of the instant application and that of Hacker et al., Brigance, and Jimoh is that the instant invention requires a herbicidal composition wherein the concentration of the surfactant is not greater than 3.9 g/L as opposed to being from about 120 to about 180 grams/L.

Finding of prima facie obviousness

Rationale and Motivation (MPEP 2142-2143)

It would have been obvious to one of ordinary skill in the art at the time of the invention to arrive at an aqueous herbicidal composition comprising glyphosate or a derivative thereof, a pyridine analog or derivative thereof selected from the group consisting of triclopyr, clopyralid, dithiopyr, thiazopyr, and picloram, and at least one surfactant. Glyphosate herbicidal combinations are well known to one of ordinary skill

in the art as taught by Jimoh , Brigance, and Hacker et al. Although the aforementioned references do not teach the use of the surfactant concentrations as claimed in the instant application, absent a showing of unexpected results, it would be obvious to one of ordinary skill in the art to vary the concentration amounts depending on the desired result and plant species. Determining optimal concentrations of the herbicidal composition components is routine experimentation and is readily practiced by one of ordinary skill.

Examiner's Response to Applicant's Remarks

Applicant's arguments filed on October 23, 2008 have been fully considered but they are not persuasive. Applicant points to Table 4.4.1 on pages 69 and 70 of the instant specification wherein the claimed co-herbicide combination was shown to provide enhanced early symptoms of herbicidal efficacy on Fescue/Blue and Golden Rod at 5 DAT as compared to what would be expected from the additive effect of the herbicides individually. The Examiner wants to point out that this data is not comparing the closest prior art (i.e. the teachings of Jimoh and Hacker et al.) which also teach the claimed co-herbicide combination and the claimed weight ratio of at least 7.6:1.

Applicant argues that under the Colby method for estimating synergy, an expected herbicidal efficacy for the combination of glyphosate and triclopyr when applied to Fesc/Blue is 75 and when applied to Golden Rod is 70. Applicant argues that the actual efficacy at 5 DAT for a composition containing glyphosate and triclopyr in the

ratio range of 6:1 to 36:1 exceeded the expected value of 75 thereby indicating enhanced efficacy at 5 DAT for the claimed compositions. However, the Examiner disagrees because as previously stated the data in Table 4.4.1 of the instant specification is not comparing the closest prior art (i.e. the teachings of Jimoh and Hacker et al.) which also teach the claimed co-herbicide combination and the claimed weight ratio of at least 7.6:1. Jimoh teaches the oil-soluble herbicide being present in a concentration such that the weight ratio of water-soluble herbicide (glyphosate) to oil-soluble herbicide (dithipyr and thiazopyr) ranges from about 190:1 to about 1:1 ([0038]). The newly added teaching of Hacker et al. teach that synergistic effects are observed when the active ingredients (A) (glyphosate) and (B)(cropyralid) are applied jointly (column 3, line 6-34). Hacker et al. teach that quantitative ratios of glyphosate to cropyralid of particular interest is from 2000:1 to 1:250, preferably from 1000:1 to 1:150, in particular from 200:1 to 1:50, very particularly preferably from 60:1 to 1:20 (column 9, lines 6-8). Therefore, the enhanced efficacy at 5 DAT for the claimed compositions is not unexpected.

Further, Applicants concede that the Office showed that each claimed element is described in the prior art. However, Applicants argue that the Office failed to show any reason that would direct one skilled in the art to select and combine the prior art elements from among the multitude of possible combinations disclosed in those references in order to arrive at the instant claims with any expectation of success. However, the Examiner disagrees because the teachings of Jimoh , Brigance, and Hacker et al. do suggest the combination of glyphosate, a pyridine analog, and at least

one surfactant. Additionally, the newly added teaching of Hacker et al. consider improving the use profile of herbicides through the combination of said herbicide with one or more other active ingredients with a favorable activity profile, high stability and the greatest degree of synergistically increased action, allowing reduction of the application rate compared with the individual application of the active ingredients to be combined (column 1, lines 42-63).

Therefore, the claimed invention as a whole would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made because every element of the invention has been fairly suggested by the cited reference.

The claims remain rejected.

Conclusion

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR Only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electron Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Art Unit: 1616

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Courtney Brown, whose telephone number is 571-270-3284. The examiner can normally be reached on Monday-Friday from 8 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's Supervisor, Johann Richter can be reached on 571-272-0646. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Courtney A. Brown
Patent Examiner
Technology Center 1600
Group Art Unit 1616

/Johann R. Richter/
Supervisory Patent Examiner, Art Unit 1616